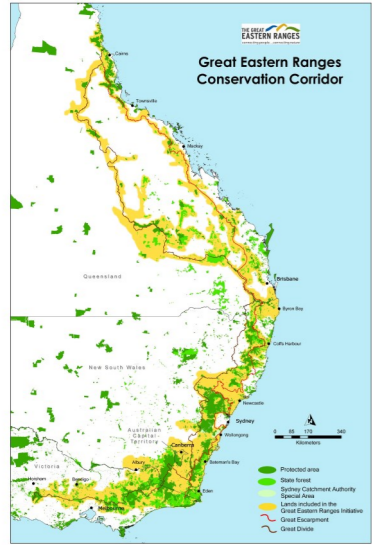


Where does Byrangergy Grass Reserve fit into the Great Eastern Ranges?

GER is one of the world's largest conservation projects bringing people and organisations together to protect, link and restore healthy habitats over 3,600 kilometres from Western Victoria through NSW and the ACT to far North Queensland. It is based on the principles of connectivity conservation, a relatively new strategy that focuses on creating linkages and corridors between protected areas and other core habitat areas through revegetation and protection of existing habitat. GER is a strategic response to mitigate the potential impacts of climate change, invasive species, land clearing and other environmental changes on our richest biodiversity and iconic landscapes.



Why Are the Ranges Important?

The Great Eastern Ranges form a mountainous spine that runs the length of eastern Australia, separating the coast from the arid interior. This natural corridor serves as a major flyway for a multitude of winged species and supports 60% of Australia's threatened animals and 70% of its plants. Ancient Gondwana rainforests, Australia's tallest mountains, World Heritage Listed National Parks, interwoven with a rich cultural and social history, make this one of the world's great landscapes. The ranges also form the watershed and headwaters for the major river catchments of eastern Australia, providing clean water for over two thirds of the continent's population, whilst its dense forests soak up vast amounts of carbon from the atmosphere and filter the air we breath. In the future, the Great Eastern Ranges will play a vital role in helping to reduce the impacts of climate change, ensure resilient ecosystems and provide vital refuge areas for a plethora of native species enabling them to move and adapt to a warming climate.

Bush Connect

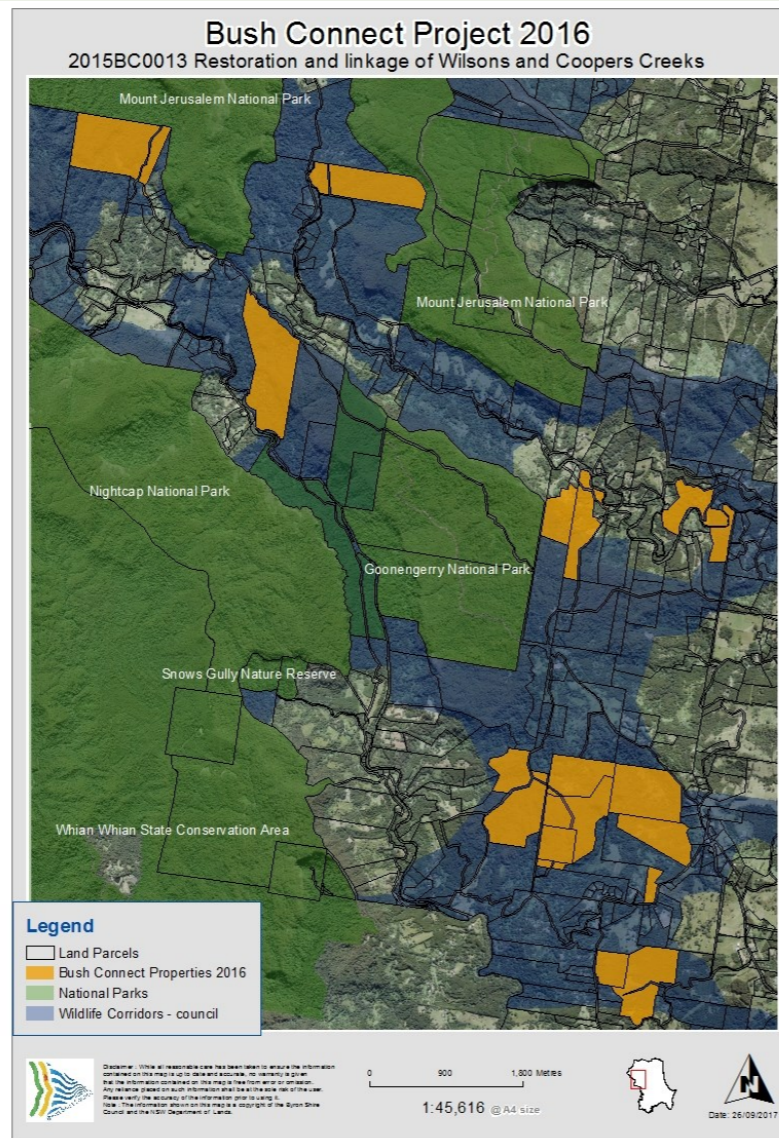
Restoration and linkage of Wilsons and Coopers Creek

Bush Connect was a one-off contestable grants program funded by the NSW Environmental Trust in 2015, seeking to achieve long-term outcomes for the NSW environment within the Great Eastern Ranges.

The objectives of the Bush Connect program are to:

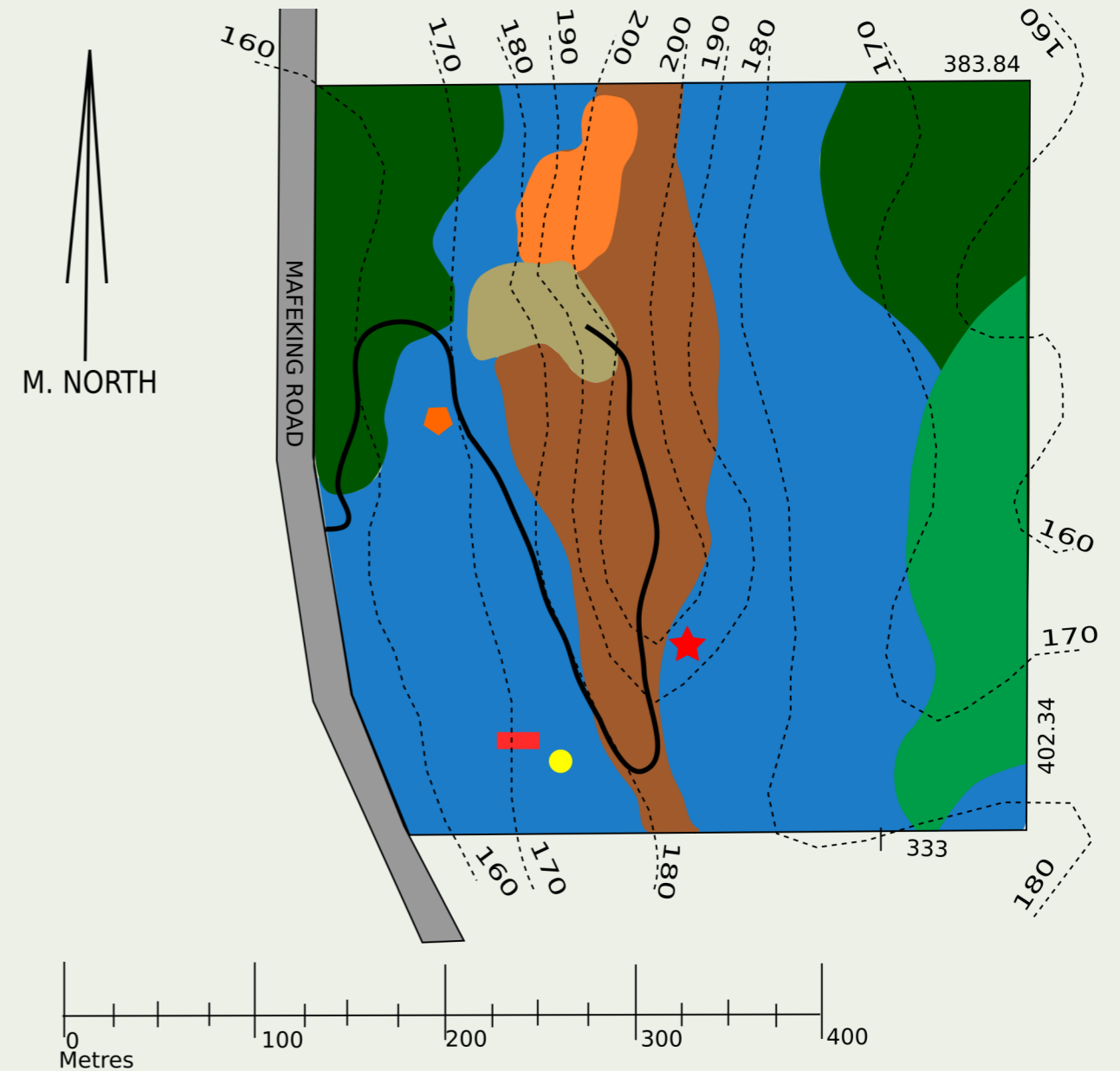
- Improve the condition and connectivity of natural resources and ecosystems within the GER corridor.
- Increase the area of land (public and private) suitable for long-term protection for its environmental value through appropriate conservation mechanisms.
- Increase the number of partnerships and alignments of effort that protect the environmental values of the GER corridor.

A local consortium made up of Goonengerry Landcare Inc, Wilsons Creek Huonbrook Landcare Inc and Byrangergy Grass Reserve Trust applied for and were successful in obtaining \$499,204 of funding under the Bush Connect program. The project will enhance connectivity and functioning of native forests surrounding four publicly owned Protected Areas (three National Parks and one Reserve). Exotic species will be controlled and 110 hectares of native forest regenerated by encouraging seed bank germination. Forests of structural integrity, mostly Endangered Ecological Communities that support 47 threatened species of flora and fauna, will be self-maintaining in the long-term.



Byrangergy Grass Reserve

This 15 hectare Reserve in Goonengerry, is set aside exclusively for Wildlife Habitat and is managed by the Byrangergy Grass Reserve Trust, appointed by the NSW Minister of Lands. The dedicated volunteers have been carrying out restoration work since 1997. 2017 is an important year as it marks 20 years since the reserve was formed, the killing of the last camphor on the reserve, and the opening of the first section of the walking track.



- LEGEND:**
- RAINFOREST
 - RAINFOREST & CAMPHOR LAUREL
 - WET SCLEROPHYLL FOREST
 - DRY SCLEROPHYLL FOREST
 - ROCK OUTCROP
 - KANGAROO GRASS *Themeda australis*
 - WALKING TRACK
 - FUMEROLES
 - WELL ruins
 - CATTLE TROUGH ruins
 - DROVERS HUT ruins

Byrangergy Grass Reserve Vegetation Map

Drawn by V. Hodgson September 2017
sourced from:
aerial photos 1996, 1991
Byron Shire Council Aerial Mapping 2015
Tibian Valley Landcare Group Inc Mapping project 1994
NSW Conservation & Land Management GIS
Byrangergy Grass Reserve Flora Survey A. Gilmore 1991
Crown Lands Office DP 728518
Central Mapping Authority of NSW Topographic Maps
Huonbrook/Dunoon

History



The entrance to the Reserve in 1997

Originally reserved in 1883 (TSR 971) for travelling stock on its way to the meatworks in Byron Bay, the Reserve's use dwindled and ceased prior to the closure of the meatworks in 1983.

In 1962 a 100 ton sample of the mineral perlite was removed from the Reserve. Again in 1988 another mining company applied for a license to remove a 60 ton sample.

This sparked the local community to work to save the Reserve from min-

ing exploitation and to protect the flora and fauna that now utilised the area. It started with rezoning to 7(k) (Habitat) and culminated in 1996 when the Minister for Mining exempted the Reserve from mining in perpetuity.

In 1997 the Byrangery Grass Reserve Trust was appointed by the Minister of Lands to manage this important Big Scrub remnant.

Ecology

The Reserve has a variety of habitats from grassy dry sclerophyll forest on the ridge, to wet sclerophyll forest on the slope, with rainforest on the deeper soils and more protected areas where it is replacing the introduced grassland and weedy scrubland.

The native and exotic plant species supported a diverse range of vertebrate fauna with 9 amphibians, 13 reptiles, 99 bird, and 16 mammals having been recorded to date.

Since taking over the management of the Reserve, the Trust has focused on woody weed removal enabling the remnant native species to flourish.

The Reserve's habitat provides essential resources for migratory birds and bats, as well as endangered or significant plants (including Arrow Head Vine and Southern Quassia) and vertebrates, (including koalas, glossy black cockatoos, pacific bazas and major skins).

Since 1988, local residents have actively participated in revegetation of the Reserve, initially by local fundraising and voluntary working bees, and by 1991 received funding from NPWS to control groundsel and camphor laurel.

This Reserve is under a Native Title claim by the Widjabal people of Northern NSW.



Arrow-head Vine *Tinaspora tinoporodes*



Common Blossom Bat *Syconocyris australis*



Black Flying-fox *Pteropus alecto*



Photo credit A Ralcliffe

The aerial photographs of Byrangery Grass Reserve are from left to right, 1996, 2004, 2009 and 2017.

You will notice in the first photo there is quite a lot of open area from cattle grazing.

In the most recent photo you can see the dead camphors at the east of the reserve.

Funding Grants

Further grants from government agencies have furthered the work in weed control, by engaging qualified bush regenerators, enabling native species to establish and grow without impediment from the weeds.

The Reserve Trust began construction of a walking track in 2014, utilising the Trust's fundraising efforts, volunteer labour and Department of Lands grants. Other grants received by the Trust have enabled on-going weed eradication to facilitate environmental repair.

A ten year NSW Government Environmental Trust Bush Connects Grant, awarded in 2016, is enabling employment of professional bush regeneration workers and will see the removal of the last stand of camphor laurels on the Reserve.

Threatened Species

The reserve is home to a wide variety of animals and plants, many of which are endangered or threatened.

Fauna

In total 9 amphibians, 11 reptiles, 99 birds, 16 mammals, 5 microchiropteran bats have been recorded on the reserve. Below is a list of some of the threatened species that have been seen.

1. Common Blossom Bat *Syconocyris australis*
2. Eastern Long-eared Bat *Nyctophilus bifax*
3. Black Flying-fox *Pteropus alecto*
4. Koala *Phascolarctus cinereus*
5. Common Planigale *Planigale maculata*
6. White-eared Monarch *Monarcha leucotis*
7. Glossy Black Cockatoo *Calyptorhynchus lathami*
8. Rose-crowned Fruit-dove *Ptilinopus regina*
9. Wompoo Fruit-dove *Ptilinopus magnificus*
10. Bush Hen *Gallinula olivacea*

Flora

All up 192 plant species occur in 5 major vegetation types (Andrew Murray 1990, Biosis 1990). Below is a list of some of the threatened species that have been found.

1. Arrow-head Vine *Tinaspora tinoporodes*
2. Red Bopple Nut *Hicksbeachia pinnatifolia*
3. Silky Cucumber *Trichosanthes subvelutina*
4. Veiny Laceflower *Archidendron muellerianum*
5. Quassia *Quassia sp*



Koala *Phascolarctus cinereus*

Photo credit M Bingham



Rose-crowned Fruit-dove *Ptilinopus regina*

Photo credit R Hollands

